

Appendix B

MILL PERFORMANCE DATA VERSUS EFFLUENT LIMITATIONS GUIDELINES

Table B-1

**Cokemaking Operations
Comparison of ELG Long Term Average Performance with Mill Performance**

Pollutant	ELG LTA	Mill C		Mill B		Mill A	
		LTA	% Diff	LTA	% Diff	LTA	% Diff
TSS	0.10843	0.00310	97.1	0.03936	63.7	0.01601	85.2
Oil & Grease	0.00751	0.00142	81.1	0.00067	88.5	0.000980	87.0
Ammonia-N	0.00747	0.00451	94.0	0.00117	84.3	0.00317	57.5
T. Cyanide	0.00294	0.00035	88.1	0.00460	- 56.7	0.00358	- 22.0
Phenols (4AAP)	0.000013	0.0000079	37.9	0.0000270	- 111	0.000041	- 221
Benzene	0.000013	0.0000065	49.4	0.0000019	85.1	0.0000009	93.0
Benzo-a-pyrene	0.000013	ND	> 99	0.0000141	- 10.4	0.0000021	83.6
Naphthalene	0.000013	ND	> 99	0.0000073	42.8	0.0000043	66.3

Table B-2
Sintering Operations
Comparison of ELG Long Term Average Performance with Mill Performance

Pollutant	ELG LTA	Mill D		Mill E		Mill C*	
		LTA	% Diff	LTA	% Diff	LTA	% Diff
TSS	0.01953	0.000122	99.4	0.00405	79.3	0.002577	86.8
Oil & Grease	0.00350	0.000120	96.6	0.00227	20.9	0.000566	83.9
Ammonia-N	0.00300	0.000773	74.3	0.02910	- 869	0.002579	14.2
T. Cyanide	0.00100	0.0000019	99.8	0.0000658	93.4	0.0000571	43.0
Phenols (4AAP)	0.0000075	0.0000001	98.5	0.0000392	- 422	0.0000013	82.8
T. Lead	0.0000626	0.0000005	99.2	0.0000089	85.8	0.0000235	62.4
T. Zinc	0.0000751	0.0000110	85.4	0.0000934	- 24.4	0.0000315	58.0

* Transfer of Mill C effluent quality for combined blast furnace/coke plant treatment to sinter plant at model BAT flow of 120 gallons/ton

Table B-3

Ironmaking Operations
Comparison of ELG Long Term Average Performance with Mill Performance

Pollutant	ELG LTA	Mill G		Mill F		Mill E	
		LTA	% Diff	LTA	% Diff	LTA	% Diff
TSS	0.02911	0.00335	84.7	0.00179	91.8	0.00237	89.2
Ammonia-N	0.001752	0.001742	0.6	0.002272	- 29.6	0.01704	- 872
T. Cyanide	0.000584	0.0000072	98.8	0.0000016	99.7	0.0000385	93.4
Phenols (4AAP)	0.0000438	0.0000020	55.0	0.0000005	89.5	0.0000230	- 425
T. Lead	0.0000365	0.0000055	84.9	0.0000040	89.1	0.0000052	85.8
T. Zinc	0.0000438	0.0000319	27.1	0.0000134	69.3	0.0000547	- 24.4

Pollutant	ELG LTA	Mill H		Mill I		Mill C	
		LTA	% Diff	LTA	% Diff	LTA	% Diff
TSS	0.02911	0.000666	97.0	0.003972	82.1	0.004150	81.1
Ammonia-N	0.001752	0.002655	- 51.1	0.003261	- 86.1	0.0006031	65.6
T. Cyanide	0.000584	0.0003279	43.9	0.0000154	97.4	0.0004677	19.9
Phenols (4AAP)	0.0000438	0.0000039	11.0	0.0000065	- 48.4	0.0000106	- 142
T. Lead	0.0000365	0.0000006	98.4	0.0000012	96.7	0.0000423	- 15.8
T. Zinc	0.0000438	0.0000069	84.3	0.0000270	38.4	0.0000567	- 29.4

Table B-4

**Steelmaking Operations
Comparison of ELG Long Term Average Performance with Mill Performance**

Basic Oxygen Furnace: Wet - Suppressed Combustion

Pollutant	ELG LTA	Mill G		Mill F		Mill C	
		LTA	% Diff	LTA	% Diff	LTA	% Diff
TSS	0.007510	0.002455	67.3	0.0000836	98.9	0.005756	23.4
T. Lead	0.0000417	0.0000103	75.3	0.0000012	97.1	0.0000586	- 40.4
T. Zinc	0.0000834	0.0000041	95.1	0.0000191	77.1	0.0000785	5.9

Basic Oxygen Furnace: Wet - Open Combustion

Pollutant	ELG LTA	Mill B		Mill H	
		LTA	% Diff	LTA	% Diff
TSS	0.01744	0.000741	95.8	0.009250	47.0
T. Lead	0.0000918	0.0000142	84.5	0.0000567	38.2
T. Zinc	0.0001836	0.0000277	84.9	0.0002888	- 57.3

Table B-5

Vacuum Degassing and Continuous Casting Operations
Comparison of ELG Long Term Average Performance with Mill Performance

Vacuum Degassing

Pollutant	ELG LTA	Mill C		Mill F	
		LTA	% Diff	LTA	% Diff
TSS	0.003547	0.0005756	83.8	0.0000836	97.6
T. Lead	0.00002086	0.0000059	72.0	0.0000012	94.2
T. Zinc	0.00004173	0.0000078	81.2	0.0000191	84.2

Continuous Casting

Pollutant	ELG LTA	Mill F		Mill B-1		Mill B-2	
		LTA	% Diff	LTA	% Diff	LTA	% Diff
TSS	0.02086	0.0000836	99.6	0.000374	98.2	0.001190	94.3
Oil & Grease	0.005216	0.0005792	88.6	0.000165	96.8	0.0001700	96.7
T. Lead	0.00000835	0.0000012	85.6	0.0000072	13.8	0.0000077	7.7
T. Zinc	0.00004173	0.0000191	54.2	0.0000140	66.4	0.0000077	81.4

Note: Mill J operates two thin-slab continuous casters and a hot strip mill with no process wastewater discharge.

Table B-6

Hot Forming - Hot Strip Mills
Comparison of ELG Long Term Average Performance with Mill Performance

Pollutant	ELG LTA	Mill F		Mill D		Mill C	
		LTA	% Diff	LTA	% Diff	LTA	% Diff
TSS	0.1047	0.00101	99.0	0.00112	98.9	0.00453	95.7
Oil & Grease	0.02136	0.00051	97.6	0.00244	88.6	0.00207	90.3
T. Lead	0.000075					0.000046	38.4
T. Zinc	0.000523					0.000062	88.2

Note: Mill J operates two thin-slab continuous casters and a hot strip mill with no process wastewater discharge.

Table B-7

Steel Finishing Operations
Comparison of ELG Long Term Average Performance with Mill Performance

Pollutant	Mill L					Mill K		
	ELG LTA	LTA	% Diff	LTA	% Diff	ELG LTA	LTA	% Diff
TSS	0.126	0.0271	78.5	0.0239	81.1	0.1603	0.0517	67.7
Oil & Grease	0.0531	0.0129	75.6	0.0194	63.5	0.0703	0.0122	82.7
T. Chromium	0.00129	0.000286	77.9	0.000292	77.4	0.00246	0.000853	65.3
T. Lead	0.000707			0.000529	25.4	0.00107	0.000077	92.8
T. Zinc	0.001469	0.000303	79.4	0.000289	80.4	0.00221	0.000132	94.5
T. Cyanide	0.000736	0.000172	76.6	0.000130	82.3	0.00132	0.000031	97.7
T. Tin							0.000738	
Fluoride		0.01257		0.00541				
Naphthalene	0.000021					0.0000010		
Tetrachloro-ethylene	0.000035					0.0000030		

B-7

Appendix C

IRON AND STEEL MANUFACTURING FACILITIES INCLUDED ON STATE 304(L) SHORT LISTS

**IRON AND STEEL MANUFACTURING FACILITIES
INCLUDED ON STATE 304(L) SHORT LISTS**

NPDES	Facility Name	City	SIC Code	Waterbody	Reach Number Cataloging Unit/Segment	Pollutants
AL0003247	Sloss Industries	Birmingham	3312	Five Mile Creek	03160111/006	Cadmium, Copper, Cyanide, Lead, Zinc
CT0000825	Napier Co.	-	3479	Clark Brook	01100004/-	Copper
CT0002623	Risdon	-	3479	Still River	01080207/018	Copper
IN0000094	Inland Steel	East Chicago	3312	Indiana Ship Channel	04040001/010	Lead, Zinc
IN0000205	LTV Steel	East Chicago	3312	Indiana Ship Channel	04040001/010	Cadmium, Cyanide
IN0000281	USX Corp.	Gary	3312	Grand Calumet, East Br.	04040001/010	Chromium, Phenol
IN0000639	Universal Tool	Butler	3479	Teutsch Ditch	04100003/002	Chromium, Copper, Zinc
IN0001074	Landis & GYR	Lafayette	3479	Wabash River	05120108/-	Copper
IN0002445	Midstates Steel & Wire	Crawfordsville	3315	Whitlock Springs	05120110/001	Copper, Lead
IN0003107	Sheller Globe Corp.	Union City	3479	Little Mississinewa	05120103/007	Copper, Nickel
IN0038172	Roll Coater	Kingsbury	3479	Travis Ditch	07120001/022	Copper, Lead, Zinc
IN0045284	Allegheny Ludlum	New Castle	3316	Big Blue River	05120204/006	Nickel
IN0049743	Wm. Pfarrer Co.	Walton	3479	Phillips Ditch	05120105/-	Chromium, Copper, Zinc
MD0000981	Eastern Stainless Steel	Baltimore	3312	Bacon Creek	02060003/-	Copper, Lead, Nickel, Zinc
MD0001201	Bethlehem Steel Corp.	Baltimore	3312	Patapsco, Bear, Old Road Bay	-	Copper, Cyanide, Nickel
OH0000426	Stanadyne, Inc.	Loraine	3479	Black River	04110001/004	Copper
OH0004219	Timken Co.	Canton	3312	Domer Ditch	05040001/-	Zinc

**IRON AND STEEL MANUFACTURING FACILITIES
INCLUDED ON STATE 304(L) SHORT LISTS (continued)**

NPDES	Facility Name	City	SIC Code	Waterbody	Reach Number Cataloging Unit/Segment	Pollutants
OH0006939	Republic Engineered Steels	Massillon	3312	Tuscarawas River	-	Copper
OH0007188	J&L Specialty Products	-	3316	East Branch Nimishillen Creek	05040001/028	Copper, Nickel
OH0083852	Sharon Steel	Warren	3312	Red Run Trib	05060001/035	Copper, Cyanide, Silver, Zinc
OH0101079	Warren Consolidated Industries	Warren	3312	Mahoning River	0503010/-	Lead, Zinc
PA0002429	Sharon Steel	Farrell	3312	Shenango River	-	-
PA0002992	Bethlehem Steel	Johnstown	3312	Conemaugh River	-	Over 20 Organics and Metals
PA0003239	Babcock & Wilcox Co.	-	3316	Beaver River	-	-
PA0004073	U.S. Steel - Irvin Works	Pittsburg	3312	Monongahela River	-	-
PA0004464	U.S. Steel - National	Pittsburg	3312	Monongahela River	-	-
PA0004472	U.S. Steel - Clairton Works	Clairton	3312	Monongahela River	-	-
PA0004481	USS Homestead Works	Pittsburg	3312	Ohio River	-	-
PA0005754	J&L Specialty Products Corp.	-	3312	Ohio River	-	-
PA0006327	Allegheny Ludlum	-	3312	Kiskiminetas River	-	Organics, Silver
PA0006378	Cyclops Corp.	Sharon	3317	Shenango River	-	Chromium, Nickel, Phenol
PA0008303	Bethlehem Steel	Steelton	3312	Susquehanna River	-	Cadmium, Copper, Lead
PA0009164	Freedom Forge Corp.	-	3312	Kishacoquillas Creek	-	-

**IRON AND STEEL MANUFACTURING FACILITIES
INCLUDED ON STATE 304(L) SHORT LISTS (continued)**

NPDES	Facility Name	City	SIC Code	Waterbody	Reach Number Cataloging Unit/Segment	Pollutants
PA0013129	Carpenter Tech Corp.	Reading	3312	Schuylkill River	-	Copper, Phenols, Silver, Zinc
PA0013463	U.S. Steel	Bucks County	3312	Delaware River	-	-
PA0013820	Allegheny Ludlum Steel Corp.	-	3312	Allegheny River	-	Chromium, Silver, 2,4-Dichlorophenol
PA0094510	USS Edgar Thompson Works	Pittsburg	3312	Turtle Creek	-	Lead
PA0094811	U.S. Steel - Duquesne	Pittsburg	3312	Monongahela River	-	-
UT0000361	Geneva Steel	Orem	3312	Utah Lake	16020201/004	Cyanide, Phenols, WET
VA0001589	Roanoke Electric Steel	Roanoke	3312	Peters Creek	-	Copper, Lead, Silver, Zinc

Source: Compiled from OW files dated April/May 1991.

NOTE: Summary based on EAD SIC Codes, May 1994 (3312, 3315, 3316, 3317, 3479).

05/17/94